

**SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM**

**Date Form Completed:** 10/23/13

**General Site Information**

Region:	Region III	City:	Philadelphia	State:	PA
CERCLIS EPA ID:	PAD981740061	CERCLIS Site Name:	Crossley Farm		
NPL Status: (P/F/D)	F	Year Listed to NPL:	1991		

**Brief Site Description:** *(Site Type, Current and Future Land Use, General Site Contaminant and Media Info, Site Area and Location information.)*

The Site consists of a contamination source area, where drums of solvent were released to the environment, and a plume of solvent contaminated ground water which extends away from the source area. The ground water contamination plume underlies a number of residences. This operable unit (OU3) addresses vapor intrusion at affected residences by installation of vapor intrusion mitigation systems.

**NOTE:** EPA Region III has approximately enough Special Account money for the first 12 affected residences identified in the interim ROD (2012). An additional five residences have been determined by EPA Region III to require vapor intrusion mitigation based on sampling which was done in March 2013. Cost estimates in this Priority Panel Review Form assume that EPA uses up the remainder of the Special Account money during construction of the first 12 vapor intrusion mitigation systems, and Fund Lead Remedial Action money is required for the next five residences. Additional sampling will be performed during the upcoming winter (approximately January 2014), however, the number of affected residences is not expected to increase dramatically based on that upcoming sampling.

**General Project Information**

Type of Action:	Remedial Action	Site Charging SSID:	2014;TR2;03SOX52303DD2;0352RA03
Operable Unit:	3	CERCLIS Action RAT Code:	
Is this the final action for the site that will result in a site construction completion?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will implementation of this action result in the Environmental Indicator for Human Exposure being brought under control?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

**Response Action Summary**

Describe briefly site activities conducted in the past or currently underway:

## SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM

Drums and contaminated soil have been excavated from the source area. Residual chemical contamination remains in the source area within fractured bedrock. Impacted residential wells have been equipped with point of entry treatment systems. A ground water pump and treat system has been constructed to limit further migration of the most contaminated portion of the ground water plume.

Specifically identify the discrete activities and site areas to be considered by this panel evaluation:

This remedial action includes construction of vapor intrusion mitigation systems at affected residences which overlie the solvent contaminated ground water plume (primary contaminant is TCE).

Briefly describe additional work remaining at the site for construction completion after completion of discrete activities being ranked:

A number of activities will remain, including preparation of final ROD to address contaminated ground water, and design and construction of Superfund remedy at source area to address chemical contamination within fractured bedrock.

### Response Action Cost

Total Cost of Proposed Response Action:

*(\$ amount should represent total funding need for new RA funding from national allowance above and beyond those funds anticipated to be utilized through special accounts or State Superfund Contracts.)*

Exemption 5: DP

Source of Proposed Response Action Cost Amount:

*(ROD, 30%, 60%, 90% RD, Contract Bid, USACE estimate, etc...)*

Exemption 5: DP

Breakout of Total Action Cost Planned Annual Need by Fiscal Year:

*(If the estimated cost of the response action exceeds \$10 million, please provide multiple funding scenarios for fiscal year needs; general planned annual need scenario, maximum funding scenario, and minimum funding scenario.)*

All of the Remedial Action money required for this response action can be used in FY14.

Other information or assumptions associated with cost estimates?

The majority of this remedial action has been funded with special account money. Exemption 5: DP



**SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM**

**Exemption 5: DP**

**Readiness Criteria**

1. Date State Superfund Contract or State Cooperative Agreement will be signed (Month)?

No later than January 2014

2. If Non-Time Critical, is State cost sharing (provide details)?

N/A

3. If Remedial Action, when will Remedial Design be 95% complete?

The RD for the next 5 residences is being prepared and is expected to be complete in December 2013.

4. When will Region be able to obligate money to the site?

February 2014

5. Estimate when on-site construction activities will begin:

March 2014

6. Has CERCLIS been updated to consistently reflect project cost/readiness information?

Yes

**Site/Project Name:**

**Criteria #1 - RISKS TO HUMAN POPULATION EXPOSED (Weight Factor = 5)**

Describe the exposure scenario(s) driving the risk and remedy. Include risk and exposure information on current/future use, on-site/off-site, media, exposure route, and receptors:

Vapor intrusion from ground water contamination plume into existing residences; primary contaminant is TCE.

2 residence examples:

Residence 24 is over the highest portion of the ground water plume, elevated TCE in sub slab, based on reasonably conservative attenuation to inside of house, potential hazard index is 470.

Residence 59 is over the highest portion of ground water plume, elevated TCE in sub slab and indoor air, potential hazard index from sub slab is 86, actual hazard index from indoor air is 2.9.

Estimate the number of people reasonably anticipated to be exposed in the absence of any future EPA action for each medium for the following time frames:

<b>MEDIUM</b>	<b>&lt;2yrs</b>	<b>&lt;10yrs</b>	<b>&gt;10yrs</b>
Air	20 people		

**SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM**


Discuss the likelihood that the above exposures will occur:

EPA has demonstrated ground water to indoor air vapor intrusion at the Site.

Other Risk/Exposure Information?

Some residents have been historically exposed to Site related contamination via contaminated drinking water (currently addressed by point of entry water treatment systems).

**Site/Project Name:**

**Criteria #2 – SITE/CONTAMINANT STABILITY (Weight Factor = 5)**

Describe the means/likelihood that contamination could impact other areas/media given current containment:

The current treatment plant is containing part of the ground water plume. Additional work is planned including treating an area with high concentration of VOCs in groundwater.

Are the contaminants contained in engineered structure(s) that currently prevents migration of contaminants? Is this structure sound and likely to maintain its integrity?

No

Are the contaminants in a physical form that limits the potential to migrate from the site? Is this physical condition reversible or permanent?

No – physical state is soil vapor for this operable unit

Are there institutional physical controls that currently prevent exposure to contamination? How reliable is it estimated to be?

No

Other information on site/contaminant stability?

No

**Site/Project Name:** Crossley Farm

**Criteria #3 – CONTAMINANT CHARACTERISTICS (Weight Factor = 3)**

*(Concentration, toxicity, and volume or area contaminated above health based levels)*

List Principle Contaminants (Please provide average and high concentrations.):

*(Provide upper end concentration (e.g. 95% upper confidence level for the mean, as is used in a risk assessment, or maximum value [assuming it is not a true outlier], along with a measure of how values are distributed {e.g. standard deviation} or a central tendency values [e.g., average].)*

**NOTE: each residence has location specific data – results below are for residence 59 (cited above with risk info) – concentrations are maximum for that residence.**

<b><u>Contaminant</u></b>	<b><u>*Media</u></b>	<b><u>**Concentrations</u></b>
---------------------------	----------------------	--------------------------------

**SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM**

TCE	Sub slab soil vapor	1800 micrograms per cubic meter
TCE	Indoor air	5.9 micrograms per cubic meter

(\*Media: AR – Air, SL – Soil, ST – Sediment, GW – Groundwater, SW – Surface Water)

(\*\*Concentrations: Provide concentration measure used in the risk assessment and Record of Decision as the basis for the remedy.)

Describe the characteristics of the contaminant with regards to its inherent toxicity and the significance of the concentrations and amount of the contaminant to site risk. *(Please include the clean up level of the contaminants discussed.)*

TCE is main Site contaminant.

Describe any additional information on contaminant concentrations which could provide a better context for the distribution, amount, and/or extent of site contamination. *(e.g. frequency of detection/outlier concentrations, exposure point concentrations, maximum or average concentration values, etc.....)*

Other information on contaminant characteristics?



<b>Site/Project Name:</b>	
<b>Criteria #4 – THREAT TO SIGNIFICANT ENVIRONMENT (Weight Factor = 3)</b>	
<i>(Endangered species or their critical habitats, sensitive environmental areas.)</i>	
Describe any observed or predicted adverse impacts on ecological receptors including their ecological significance, the likelihood of impacts occurring, and the estimated size of impacted area:	
No	
Would natural recovery occur if no action was taken? If yes, estimate how long this would take.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Unknown	
Other information on threat to significant environment?	
No	
<b>Site/Project Name:</b>	
<b>Criteria #5 – PROGRAMMATIC CONSIDERATIONS (Weight Factor = 4)</b>	
<i>(Innovative technologies, state/community acceptance, environmental justice, redevelopment, construction completion, economic redevelopment.)</i>	
Describe the degree to which the community accepts the response action.	
Adverse reaction from the community has not been noted with regard to this remedial action. The community supports this remedial action for affected residences. Residents are very interested in knowing when EPA will install the vapor intrusion mitigation systems.	
Describe the degree to which the State accepts the response action.	
State accepts and supports this remedial action. EPA and the State have agreed to the conditions in a SSC. A SSC is being negotiated.	
Describe other programmatic considerations, e.g.; natural resource damage claim pending, Brownfields site, use of innovative technology, construction completion, economic redevelopment, environmental justice, etc...	
N/A	